

**Executive Summary**  
**Self-Assessment Report (SAR) of Program Bachelor of Science (CS)**  
**Directorate of Quality Enhancement (DQE)**  
**Virtual University of Pakistan**

Virtual University of Pakistan established in 2002 with the aim to provide extremely affordable world class education to aspiring students all over the country regardless of their physical location by alleviating the lack of capacity in the existing universities while simultaneously tackling the acute shortage of qualified professors in the country using free-to-air satellite television broadcasts and the Internet. To pursue this aim, the Department of Computer Sciences is designated to initiate and implement Self-Assessment process designed by Quality Assurance Agency (QAA) of HEC. The current document summarizes the findings of self-assessment process of Bachelor of Science (CS) program.

The department of Computer Sciences is committed to produce graduates who can develop computer applications/processes to enhance efficiency & effectiveness of organizations to lead in global market-place. The department follows its vision in all of its courses and areas of specialization offered at both Masters and Bachelors levels. The department feels satisfied upon completion of the following list of tasks:

1. Development of **Self-Assessment Report (SAR)** by Program Team for BSc (CS) program.
2. Conduct of critical review and submission of **Assessment Report (AR)** by Assessment Team for BSc (CS) program.
3. Development of **Rectification Plan** by Head of Department.

The tasks were completed according to the set methodology through Program and Assessment Teams nominated by the Rector upon recommendation of the Department.

### **Methodology**

The methodology adopted to complete the whole SAR cycle is described below:

1. A Program Team (PT) was nominated for the program. Initial orientation and training sessions for all the members were arranged by DQE. The composition of PT is given in Table 1:

**Table 1: Program Team**

<b>Sr.#</b>	<b>Name</b>	<b>Designation</b>
1.	Mr. Abdul Qahar Mohsin (Coordinator)	Lecturer (Computer Sciences)
2.	Mr. Haseeb Akmal	Instructor (Computer Sciences)
3.	Mr. Adeel Ahmed	Instructor (Computer Sciences)

2. All the relevant material such as SAR manual, survey forms, etc. was provided to PT.
3. Continuous support, guidance and feedback were provided to PT members to prepare SAR for the said program.
4. After completion and submission of the final SAR by PT, an Assessment Team (AT) was formed by the Rector upon recommendation of the Department. Accordingly, a Subject Specialist from other institution was also included. The composition of AT is given below in Table 2:

**Table 2: Assessment Team**

Sr.#	Name	Designation
1.	Dr. Saleem Iqbal	Assistant Professor , University Institute of Information Technology, Pir Mahr Ali Shah, Arid Agriculture University, Rawalpindi
2.	Mr. Muhammad Ibrahim	Instructor (Computer Sciences), Virtual University of Pakistan
3.	Mr. Asim Mehmood	Instructor (Computer Sciences), Virtual University of Pakistan

5. The SAR developed by PT was forwarded to AT for critical review.
6. After completion of critical review and assessment of the SAR, AT members visited the department and had a meeting with PT.
7. After the visit, AT submitted a report and feedback form (Rubric Form) to DQE.
8. DQE forwarded the observations & findings of AT report to the Head of Department for developing a rectification plan.
9. DQE will now monitor implementation of Rectification Plan.

### **Parameters for the SAR:**

The SAR is prepared on the following eight (8) criteria prescribed by HEC:

- Criterion 1: Program Mission, Objectives and Outcomes Criterion
- Criterion 2: Curriculum Design and Organization Criterion
- Criterion 3: Laboratory and Computing Facility Criterion
- Criterion 4: Student Support and Advising Criterion
- Criterion 5: Process Control Criterion
- Criterion 6: Faculty Criterion
- Criterion 7: Institutional Facilities Criterion
- Criterion 8: Institutional Support

### **Key Findings of the SAR:**

Following is the summary of the key SAR findings:

#### **Academic Observations:**

1. The learning objectives and outcomes of the program are not measurable and they are also not supporting the mission statement of the program.

2. Feedback in terms of various surveys such as employer survey, course evaluation etc. to assess the program effectiveness is not available.
3. Teachers' performance in terms of scholarly activities and research output is not reported in the report. No evidence is shared in the report about how many faculty members are awarded for excellence in teaching.
4. It is not predictable from the report whether any mechanism is in practice to assess overall performance of the department periodically using quantifiable measures.
5. Categorization of program's core contents in terms of theoretical background, problems analysis and solution design is not made to design assessment tools.
6. Least efforts are in practice to improve oral presentation skills of the learners.
7. Mechanism is available, although insufficient, for academic counseling but not for professional or career counseling of the learners. Not any method is devised to measure the effectiveness of such advising systems. For the career counseling of students, seminars and workshops should be organized at least once in a semester and experts from industries and organizations should be invited.
8. No information is provided how frequently the learning objectives/outcomes, admission criteria, processes are evaluated for improvement.
9. There is shortage of reference books in digital library. The Department has deficiency of e-resources for students and faculty.
10. There are no such guidelines, as far as ethics are concerned, for students have provided or conveyed to teachers. In online mode system, students miss the opportunity of learning ethics, communication skills and the experience of teacher.

#### **Administrative Observations:**

- Faculty development incentives are not sufficient; for instance, faculty should be encouraged with flexible timings or with half paid salaries to pursue Ph.D. programs
- Lack of time for research activities has been identified as a major weak area of job description of faculty associated with Virtual University of Pakistan.
- Similar to "VU software house", a setup like "Networking Laboratory" must be established in all major cities where students can learn the configuration on networking devices like HUBS, Routers, switches/bridges etc.

#### **Conclusion and Recommendations:**

While analyzing Criteria Referenced Self-Assessment, it has been found that performance of the department is satisfactory but still there are many gray areas which keep it from performing well. It is reflected in terms of moderate overall assessment score (60/100)

reported by AT. This average score demands that the rectification plan should be implemented immediately.

In the report, need improvement areas are identified by AT. Most of the criteria are rated as “fair performance” and become major reasons for this moderate score. The criteria rated high are: Criterion # 3 (Laboratories and Computing Facilities) and Criterion # 7 (Institutional Facilities). The absence of any mechanism to evaluate various processes, learning objectives/outcomes and faculty performance, lack of incentive plan to retain quality faculty, non-availability of enough PhD faulty members, least time for research and limited access to digital resources and physical library are the areas where AT has great concerns.

The Need Improvement areas identified during self-assessment process have been reported to the Head of respective Department and the specific rectifications have also been requested. DQE will follow up the implementation plan as per the specific time-frame.

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Deputy Director, DQE

Advisor QEC: \_\_\_\_\_

The Rector: \_\_\_\_\_